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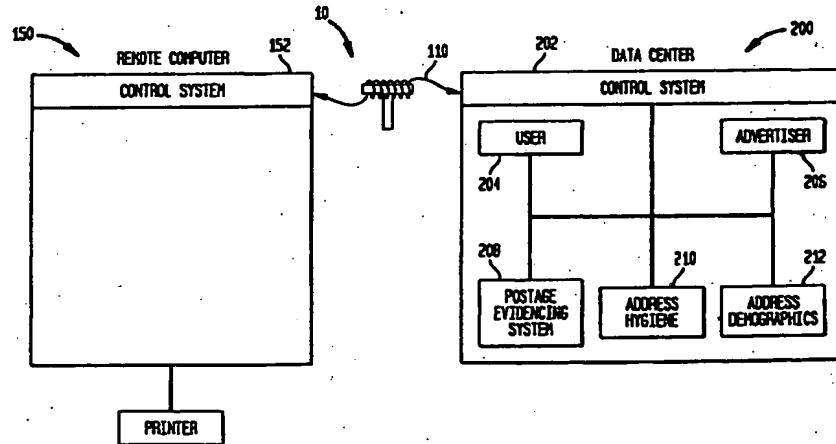
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(54) Postage printing system having variable subsidies for printing of third party messages

(57) A postage printing system (10), comprising a computer (150), a data center (200) and a control system (152,202). The computer is in operative communication with a printer for printing a postal indicia on an envelope. The data center (200) is in operative communication with the computer (150) which in turn is located remotely from the data center. The data center includes a plurality of user accounts (204) and a plurality of advertiser accounts (206) where each of the plurality of advertiser accounts includes respective ad data including message data and restriction data. The control sys-

tem (152,202) is in operative communication with the data center (200) and the computer (150) and is for: (i) establishing a transaction session between a user of the computer corresponding to one of the plurality of user accounts and the data center; (ii) obtaining the user profile data from the user; and (iii) using the recipient user profile data to identify message data available for printing on the envelope in conjunction with the postal indicia.

FIG. 3



Description

[0001] This invention relates generally to postage printing systems, and is applicable to a postage printing system including subsidies for printing of third party messages. The present invention also relates to a method of operating a postage printing system and a method of operating a data center.

[0002] This application is related to the following co-pending applications filed concurrently herewith and commonly assigned to the assignee of this application: European Patent Application Number

_____, entitled POSTAGE PRINTING SYSTEM HAVING SUBSIDIZED PRINTING OF THIRD PARTY MESSAGES (Applicant Docket No. E-796, Attorney Ref. 80838), European Patent Application Number _____, entitled POSTAGE PRINTING SYSTEM HAVING A DIGITAL COUPON DISTRIBUTION SYSTEM (Applicant Docket No. E-737, Attorney Ref. 80839) and European Patent Application Number _____, entitled PRODUCTION MAIL SYSTEM HAVING SUBSIDIES FOR PRINTING OF THIRD PARTY MESSAGES ON MAIL-PIECES (Applicant Docket No. E-806, Attorney Ref. 80851).

[0003] Postage printing systems are well known in the art. A typical postage meter (one example of a postage printing system) applies evidence of postage, commonly referred to as a postal indicia, to an envelope or other mailpiece and accounts for the value of the postage dispensed. As is well known, postage meters include an ascending register, that stores a running total of all postage dispensed by the meter, and a descending register, that holds the remaining amount of postage credited to the meter and that is reduced by the amount of postage dispensed during a transaction. The postage meter generally also includes a control sum register which provides a check upon the descending and ascending registers. The control sum register has a running account of the total funds having been added into the meter. The control sum register must always correspond with the summed readings of the ascending and descending registers. Thus, the control sum register is the total amount of postage ever put into the machine and it is alterable only when adding funds to the meter. In this manner, by inspecting the various registers and securing them from tampering, the dispensing of postal funds may be accurately recorded, tracked and accounted for.

[0004] More recently, a postage printing system has been developed where the accounting structure described above is no longer resident with the user of the postage printing device. Sometimes referred to as a "virtual postage meter", these types of postage printing systems dispense postage electronically over suitable communication channels (LAN, WAN, telephone lines, Internet, etc.). The user maintains an account with a remotely located data center (maintained by an author-

ized postage meter manufacturer) and receives postage securely using appropriate electronic data interchange techniques. At a later time, the user is invoiced for the amount of postage dispensed and any other fees associated with maintaining the account with the data center. Oftentimes, a secret code or token is derived from information particular to the mailpiece (the indicated postage amount, date, recipient address information, etc.) and is incorporated or embedded into the postal indicia for later use by a postal authority in verifying the integrity of the postal indicia. Examples of such systems are described in U.S. Patent No. 4,725,718 and U.S. Patent No. 5,454,038.

[0005] It is also known to print selected messages (sometimes referred to as ad slogans although such messages are not necessarily restricted to advertisements) along with the postal indicia. Generally, the message bears no relation to the postal indicia. In traditional postage meters employing either rotary drum or flat bed printing technology, the message is printed along with the postal indicia by including an additional printing die representative of the message. These dies are typically costly to manufacture and distribute and cumbersome for the postage meter user to remove/install. Also, due to physical space requirements, there are practical limits as to the number of message dies that are readily available for printing. Examples of die based systems for printing messages are disclosed in U.S. Patent No. 5,168,804 and U.S. Patent No. 5,024,153. More recently, the postage meter industry has begun to incorporate digital (dot matrix) printing technology which obviates the need for dies as the digital printer may be supplied with suitable drive signals to effect printing of the message. Thus, a graphical representation of the message may be stored in memory and used by a digital printer to print the message. Here also, due to the cost and availability of memory space, there are practical limits as to the number of graphic message files that may be stored and made readily available for printing.

[0006] Examples of digital printing technology based systems for printing messages are disclosed in U.S. Patent No. 4,831,554 and U.S. Patent No. 5,509,109.

[0007] Additionally, U.S. Patent No. 4,831,554 teaches a system that allows the postage meter manufacturer to broker the use of advertising space by third parties on the envelopes. In concept, a third party advertiser may wish to take advantage of the space on the outgoing envelopes from a particular postage meter user to advertise its own products and/or services or communicate some other type of message. In this system, a message the content of which originates from a third party is stored electronically within the postage meter. The postage meter keeps a count of the number of times that the message is printed in conjunction with the postal indicia. This count is then used by the data center to provide a subsidy to the postage meter user during a subsequent billing cycle and is correspondingly also used by the data center to invoice the third party

advertiser.

[0007] Although this brokering system represents a new business opportunity for postage meter manufacturers, it suffers from certain drawbacks and disadvantages. First, the third party advertiser cannot exercise any control over when the message is dispensed. Thus, if the message is time sensitive, then the relevance of the message may be lost after a certain date and the third party advertiser would be compelled to pay for advertising that was not effective. For example, advertisements directed to promotions that have expiration dates (rebate programs, concert tickets, limited time offers, political election/other voting inducements, etc.) are useless once the relevant time period has passed. Second, the third party advertiser cannot exercise any control over the number of messages dispensed. Thus, if the third party advertiser allocated a fixed advertising budget and accordingly only wanted to pay for a limited number of envelopes containing the message, then the third party advertiser may be compelled to pay for advertising that was not wanted if the postage meter user generates increased mail volume over that which was anticipated. Third, the third party advertiser cannot exercise any control over who receives the message. Thus, the third party advertiser has no assurance that a target audience would be reached. As one example, advertisements (e.g. sports related or hair loss, as examples) intended primarily for males may not be relevant if the recipient of the envelope from the postage meter user was a female. Fourth, the third party advertiser cannot exercise any control over the geographic reach of the message. Here again, the third party advertiser has no assurance that the target audience would be reached. For example, advertisements (e.g. local car dealership or cleaning service, as examples) intended for a certain limited geographic region would not be relevant if the recipient of the envelope from the postage meter user was located many miles away from the certain limited geographic region. As a related example, advertisements intended for the certain limited geographic region on envelopes originating from outside of the certain limited geographic region would not benefit from the increased good will of being associated with a sender located in the certain limited geographic region.

[0008] Although this brokering system represents a new opportunity for users to subsidize the costs associated with preparing and sending envelopes, it suffers from certain drawbacks and disadvantages. First, the user may not want the recipient gaining the impression that the user endorses the third party message. Thus, the user may not want to be associated with certain types of third party messages. For instance, political messages, messages from competitor's and the like may not be appropriate for the user's envelope. Second, dilution of any user message is likely to occur if third party messages appear. Thus, the effectiveness of the user message is reduced. Third, some recipients may experience a loss of intimacy with the user due to the

appearance of third party messages. This may negatively impact the good will of the user. Fourth, the user may experience extended transaction times for securing and printing postage. This leads to increased operating costs which partially offsets the benefits associated with any corresponding subsidies.

[0009] As described above, the effectiveness of the third party messages printed on envelopes is low. Because of the above drawbacks and disadvantages, the fees that third party advertisers are willing to pay postage meter manufacturers are relatively low. In turn, the subsidies that the postage meter manufacturer are able to pass along to the postage meter user are correspondingly relatively low. Thus, in the absence of a meaningful economic incentive there is little motivation for third party advertisers and postage meter users to participate in the above described system for placing third party advertising on envelopes.

[0010] Therefore, there is a need for an improved system that allows the postage meter manufacturer to broker the use of advertising space by third parties on envelopes. More particularly, there is a need for a system that places the messages on envelopes in a more effective manner so that third party advertisers are more likely to reach their target audiences. In this manner, the third party advertisers would be willing to pay higher fees resulting in an increased economic incentive for third party advertisers and postage meter users to participate.

[0011] The present invention provides a system and methods for improving the effectiveness of third party advertising on envelopes. Generally, this is accomplished by letting the users establish restrictions or limits on the envelopes that they would like to place third party messages on. The restrictions may be based upon user (sender) parameters, recipient parameters, quantitative parameters (time, piece count, budget allowances, etc.) or some combination of the above.

[0012] In accordance with the present invention, there is provided a postage printing system comprising a computer, a data center and a control system. The computer is in operative communication with a printer for printing a postal indicia on an envelope. The data center is in operative communication with the computer which in turn is located remotely from the data center. The data center includes a plurality of user accounts and a plurality of advertiser accounts where each of the plurality of user accounts includes respective user profile data and where each of the plurality of advertiser accounts includes message data. The control system is in operative communication with the data center and the computer and is for: (i) establishing a transaction session between a user of the computer corresponding to one of the plurality of user accounts and the data center; (ii) obtaining the user profile data from the user; and (iii) using the user profile data to identify message data available for printing on the envelope in conjunction with the postal indicia.

[0013] Therefore, it is now apparent that the present invention substantially overcomes the disadvantages associated with the prior art. Additional advantages of the invention will be set forth in the description which follows, and in part will be obvious from the description, or may be learned by practice of the invention. The objects and advantages of the invention may be realized and obtained by means of the instrumentalities and combinations particularly pointed out in the appended claims.

[0014] The accompanying drawings, which are incorporated in and constitute a part of the specification, illustrate presently preferred embodiments of the invention, and together with the general description given above and the detailed description of the preferred embodiments given below, serve to explain the principles of the invention. In the drawings, like reference numerals designate like or corresponding parts, and:

Fig. 1 is a simplified representation of a postage printing system including a data center and a plurality of remotely located computer systems in electronic communication with the data center in which an embodiment of the present invention may be incorporated;

Fig. 2 is a front view of an envelope that has been processed by the postage printing system in accordance with an embodiment of the present invention;

Fig. 3 is a more detailed representation of the postage printing system in accordance with an embodiment of the present invention;

Fig. 4 is a flow chart showing the operation of the postage printing system in accordance with an embodiment of the present invention;

Fig. 5 is a schematic representation of an ad data file associated with a third party message to be printed on the envelope by the postage printing system in accordance with an embodiment of the present invention; and

Fig. 6 is a schematic representation of a user data file associated with a user of the postage printing system in accordance with an embodiment of the present invention.

[0015] Referring to Fig. 1, an example of a postage printing system 10, indicative of one example of a virtual postage metering environment, in which an embodiment of the present invention may be incorporated is shown. Generally, the postage printing system 10 includes a data center 200 in communication over any suitable communication network 110 (LAN, WAN, telephone line, internet, etc.) with a plurality of remotely located computers (personal computer, workstation, laptop computer or the like) 150. Generally, it is anticipated that the computers 150 would be located in small business offices and/or in private residences and used for a variety of purposes, including obtaining postage. The data center 200 is maintained and operated by an

authorized postage meter manufacturer, some other authorized agency or a postal authority. The computers 150 may be connected directly to a printer 120 or have access to a printer 130 over the communication network 110. Those skilled in the art will recognize that not each computer 150 need utilize the same network 110 in contacting the data center 200. Likewise, the computer 150 may use one type of network 110 with the data center 200 and a different type of network with the printer 130.

5 The remotely located computers 150 are representative of users wanting to obtain postage for their mailpieces (envelopes, post cards, packages and the like).

[0016] Referring to Fig. 2, an envelope 20 having an example of a postal indicia 30, a sender address 40 and a recipient address 50 printed thereon is shown. The postal indicia 30 includes both fixed data that does not change from postal indicia to postal indicia and variable data that may change from postal indicia to postal indicia. Generally, the fixed data includes a graphic design 31 (an eagle with stars), a meter serial number 32 uniquely identifying the postage meter (not shown) that dispensed the postage and a licensing or receiving post office identifier (zip code) 36. Generally, the variable data includes a date 34 indicating when the postage

20 was dispensed, a postal value 38 indicating an amount of postage and other data 39 for use by the postal authority in verifying the authenticity of the postal indicia 30 using conventional techniques. However, those skilled in the art will recognize that the exact content of 25 both the fixed data and variable data is subject to regulation by the postal authority and a matter of design choice. For example, in a virtual meter environment the meter serial number 32 may not be used and the receiving post office identifier (zip code) 36 may be variable data. Moreover, any format (numeric, alpha-numeric, 30 bar code, other symbology and the like) may be employed for the verification data 39.

[0017] The further details of the envelope 20 will 35 now be described. In conventional fashion, the postage meter user may optionally place a sender or return address 40 in the upper left hand corner of the envelope 20. As examples, the sender address 40 may be pre-printed on the envelope 20, printed on an adhesive label and affixed to the envelope 20, or printed concurrently with the postal indicia 30 by the printer 120. The recipient address 50 represents the delivery point for the envelope 20. A further detailed description of the printing of the recipient address 50 and the relationship of the recipient address 50 to the postal indicia 30 will be

40 provided below. The remainder of the envelope 20 that is not occupied by the postal indicia 30, the sender address 40 and the recipient address 50 is available as advertising space 60 made up of a plurality of ad zones 60a, 60b, 60c and 60d. The advertising space 60 may 45 contain one or more messages from third party advertisers.

[0018] Referring to Fig. 3, a more detailed schematic of one example of the postage printing system 10

according to the present invention is shown. The remote computer 150 includes a control system 152 that is in communication over a suitable communication network 110, such as: telephone lines, public and private network systems (Internet) or the like; with a control system 202 from the data center 200. The data center 200 may be based on any conventional computer based platform (PC, server, workstation, mainframe or the like) and includes the control system 202, a user database 204, an advertiser database 206, a postage evidencing system 208, an address hygiene database 210 and an address demographics database 212, all of which are in operative communication with each other using conventional means. The user database 204 contains information concerning individual user accounts, such as: user name, user address, preferred payment vehicle or arrangements (periodic invoice, direct credit card authorization, electronic funds transfer, etc.), and the like, that have been established with the postage meter manufacturer. Similarly, the advertiser database 206 contains information concerning individual advertiser accounts, such as: advertiser name, advertiser address, preferred payment vehicle or arrangements (periodic invoice, direct credit card authorization, electronic funds transfer, etc.), ad data and the like, that have been established with the postage meter manufacturer. The address hygiene database 210 may employ any suitable database for use in cleansing submitted addresses to ensure that they are complete and correct, such as the Address Matching System (AMS) available from the United States Postal Service, Cross Check™ software system available from Pitney Bowes Inc. of Stamford, Connecticut, USA or any other commercially available system for cleansing addresses. The address demographics database 212 may employ any suitable database containing statistics relevant to certain geographic locations. As examples, various databases exist that contain detailed demographic information by zip code, such as: PRIZM available from Claritas Inc. (see Internet URL www.claritas.com), United States census information or any other database that is generally known and commercially available.

[0019] The postage evidencing system 208 accurately records, tracks and accounts for the postal funds that are dispensed to the remote computer 150. In the preferred environment, the postage evidencing system 208 includes one or more postage meters or postal security devices (PSD). That is, the data center 200 may buy postage in advance from postal authority and store it in the postage meter in conventional fashion. Thus, the data center 200 may establish one postage meter per account or multiple accounts per postage meter. In either event, the postage meter manufacturer takes care of obtaining, recharging and inspecting the postage meter. On the other hand, the postage evidencing system 208 may not include a postage meter. As a trusted third party to the postal authority, the postage meter manufacturer may merely be allowed to forward a

payment to the postal authority on a regular basis indicative of the amount of postage dispensed. In yet another alternative, the postal authority may operate the data center 200 itself.

[0020] Referring to Fig. 6 in view of Figs. 1, 2, and 3, a schematic representation of a user data profile file 205 associated with a particular user and stored in the user database 204 10 is shown. Generally, a user data profile 205 is established for each of the individual user accounts and allows each user to set parameters for controlling third party advertising on their respective envelopes 20. This may be accomplished at the time when the user opens up an account with the data center 200 or at any other mutually convenient occasion. The user data profile 205 includes classification data 205a, preference data 205b, restriction data 205c and frequent address data 205d. The classification data 205a includes an indicator of whether the user is a commercial user, a residential user, or a dual mode user. Furthermore, for the commercial user, the classification data 205a may optionally include an additional indicator of the type of business that the user is involved in. Preferably, a Standard Industry Code (SIC) representative of the user's business is assigned to each commercial user, respectively, as part of the classification data 205a. As examples, automobile rental companies would be assigned a SIC in the range of 2100 to 2199, while automobile dealerships would be assigned a SIC in the range of 2400-2499 and service stations would be assigned a SIC in the range of 4000 to 4099. The preference data 205b includes an indicator of whether the user allows third party advertising at all. In this manner, the user may by-pass the third party advertising system in its entirety. Optionally, the preference data 205b may include an indication of preferred third party advertisers. Thus, only messages from these preferred third party advertisers would be potentially available for printing on the envelope 20. As yet another option, the preference data 205b may include various default settings, such as: automatic selection of a preferred third party advertiser or automatic selection of the third party advertiser and corresponding message paying the highest subsidy. The restriction data 205c may include addressee restriction data and non-addressee (quantitative) restriction data. In this manner, the user may indicate in advance those particular recipient addresses 50 where third party advertising is not allowed. The user non-addressee restriction data, described in greater detail below, may include: date restriction data; multi-ad restriction data; and ad space restriction data. The frequent address data 205d may include a listing of recipient addresses 50 that are used on a continual basis. In this manner, the user may select from the frequently used recipient addresses 50 instead of submitting address information. Preferably, address hygiene has already been performed on the frequently used recipient addresses 50. Those skilled in the art will recognize that the above described classification data 205a, pref-

erence data 205b, restriction data 205c and frequent address data 205d may be utilized independently from each other or in any desired combination.

[0021] With the structure of the postage printing system 10 described as above, the operational characteristics will now be described with respect to a typical transaction conducted between the remote computer 150 and the data center 200. Referring primarily to Fig. 4 while referencing the structure of Figs. 1, 2, 3, 5 and 6, a flow chart of a transaction routine 600 in accordance with the present invention is shown. The diagnostic routine 600 may be comprised of any suitable combination of software, firmware and hardware sub-systems executed by the remote computer control system 152 and the data center control system 202. Generally, the activities of the data center 200 are such that they may be fully automated. On the other hand, the remote computer 150 includes a suitable user interface (CRT with menu/command driven functionality) for communicating with the user. For the sake of clarity and brevity, it is assumed that the user maintains a valid account with the data center 200. It is also assumed that the user desires to include third party advertising on envelopes.

[0022] At 602, the transaction routine 600 commences when the remote computer 150 contacts the data center 200 to establish a session for the purpose of obtaining postage. In this manner, the remote computer 150 and the data center 200 recognize each other as authentic using any conventional mutual authentication technique. This generally involves the user of the remote computer 150 transmitting a valid account number or other identifying information and a corresponding password or PIN. In this manner, postage is not inadvertently supplied to one party while a second party is invoiced for the postage. Once the session has been established, at 604, the data center 200 Next at 606, the data center 200 retrieves the user data profile file 205 associated with the user. As described above, the user data profile file 205 establishes parameters for controlling third party advertising on the each of the user's envelopes 20, respectively. For the sake of clarity and brevity, it is assumed that the user desires to include third party advertising on envelopes and has not established the preference data 205b to by-pass the third party advertising system. Next, at 606, the date center 200 obtains relevant data necessary to produce the postal indicia 30 for the envelope 20. This typically involves the user transmitting a desired postage amount and a recipient address 50 to the data center 200. Preferably, this is accomplished by having the user enter appropriate data fields (postage amount, 3 or 4 line address, etc.) in a menu screen prior to uploading to the data center 200. Alternatively, the address information may be retrieved from a word processing document such as a letter. As yet another alternative, the data center 200 may use the frequent address data 205d and allow the user to select a desired recipient address from

the frequently used recipient addresses list. Next, at 608, a determination is made whether or not the address is from the frequently used recipient addresses list. If yes, then the routine 600 proceeds directly to 612. On the other hand, if at 608, the answer is no, then at 610 the data center 200 may perform address hygiene on the obtained address before proceeding to 612. At 610, the data center 200 optionally performs address hygiene. Although address hygiene is not required, the results of the message selection will likely be improved with cleansed addresses. The recipient address 50 received from the user is compared against the address hygiene database 210. At this time, any misspelled words are corrected and any missing information (zip code, zip +4, street name, etc.) is filled in from the address hygiene database 210 to yield a hygiened or corrected recipient address 50. If the data center 200 cannot verify the integrity of the recipient address 50 received from the user, then the user may be instructed to check the recipient address 50 and resubmit it.

[0023] Next, at 612, the data center 200 searches the third party advertiser database 206 for those messages available for printing on the envelope 20. This involves taking into consideration the hygiened recipient address 50 and reconciling the preference data 205b and restriction data 205c of the user with ad data profiles of the third party advertisers. For the reasons discussed above, not every third party advertiser may want to advertise on every envelope 20. The user data profile file 205 is utilized by the data processing system 80 prior to searching the third party advertiser database 206 for those messages available for printing on the envelope 20. Any short cuts that may be employed that would make the searching quicker and more efficient are identified. For example, if the recipient address 50 indicated by the user is one of the restricted recipient addressees identified by the user's addressee restriction data, then no searching at all occurs. As another example, if the user's preference data indicates a preferred third party advertiser listing, then the searching may be limited to only those messages from the preferred third party advertisers. During searching, the ad data profiles of the third party advertisers is applied to the user and the hygiened recipient address 50. Furthermore, the restriction data of the third party advertisers must be reconciled with the restriction data of the user. Generally, this step involves establishing an ad data profile for each advertisement and comparing the hygiened recipient address 50 to the ad data profile. Referring to Fig. 5, a schematic representation of an ad data profile file 207 associated with a third party message to be printed on the envelope 20 by the postage printing system 10 is shown. The ad data includes: graphic image data 207a; subsidy rate data 207b; billing rate data 207c and restriction data. The restriction data may include sender restriction data, addressee restriction data and non-addressee (quantitative) restriction data, or any combination of types of restriction data.

Preferably, the addressee restriction data includes: geographic quantitative data 207d and recipient restriction data 207e. Preferably, the non-addressee restriction data includes: date restriction data 207f; multi-ad restriction data 207g; and ad space restriction data 207g. Piece count restriction data and budget limit data defining a maximum amount of advertising charges for a given time period may also be included in the non-address restriction data. The graphic image data 207a is representative of the desired message and may be stored in any manner of well known formats, such as: PDF, JPEG, GIF and the like. The subsidy rate data 207b includes information corresponding to the credit value that will be applied to the user's account for authorizing printing of the third party message on the envelope 20. The billing rate data 207c includes information corresponding to the debit value that will be applied to the third party advertiser's account in conjunction with printing of the third party message on the envelope 20. The geographic restriction data 207d provides an indication of what geographic areas the third party advertiser wants to target. This may be manifested by a restriction on the originating location or the destination location or preferably both. The recipient restriction data 207e provides an indication of the target audience. For example, distinctions may be made between a commercial and a residential address. In the preferred embodiment, the commercial/residential distinction may be obtained from the Address Matching System. Alternatively, this may also be accomplished by interrogating the hygienized recipient address 50 for certain "key words" indicative of a business entity, such as: inc., incorporated, co., company, associates, and the like or through the use of one of the other databases discussed above. As another example that may be used independent from or in combination with the example previously discussed, the address demographics database 212 allows further selection. Generally, income, age and other demographic statistics (age, income, education level, marital status, home ownership status, dependent information, ethnicity, etc.) are available for different regions of the country and for certain designated geographic regions. Thus, the delivery point zip code in the hygienized recipient address 50 may be cross referenced to the address demographics database 212 and the resulting other demographic statistics compared with the third party advertiser's requirements. For example, a luxury car manufacturer may only want its messages going to private residences from regions where the average income is above a predetermined threshold. The date restriction data 207f provides an indication of what dates the third party advertiser wants to advertise on. For example, expiration dates could be established beyond which the message will not be dispensed. As another example, periodic cycles (1st week of month, last week of month, on Mondays, 2 weeks before a holiday, etc.) could be established during which the message is available for printing. The multi-ad

restriction data 207g provides an indication of whether or not the third party advertiser allows another third party advertiser to occupy ad space 60 on the envelope 20. The sentiment being that a multiplicity of messages will dilute the effectiveness of the individual messages versus if the individual messages were used singularly. If the third party advertiser allows other advertisers, then a reduced subsidy rate 207b and a reduced billing rate 207c may be applied when multiple messages are employed. The ad space restriction data 207h provides an indication of which ad zones 60a, 60b, 60c and 60d the third party advertiser authorizes for use with the message. Thus, the third party advertiser may exercise some control over where on the envelope 20 the message is printed. Similarly, as an option, the user may also provide an indication of which ad zones 60a, 60b, 60c and 60d the message may be printed in. For example, the user may be using an envelope 20 with pre-printed images already occupying a portion of one or more ad zones 60a, 60b, 60c and 60d. In this scenario, the ad space restriction data 207h and the user's input must be reconciled. Those skilled in the art will recognize that the above described restriction data 207d, 207e, 207f, 207g and 207h may be utilized independently from each other or in any desired combination. Still other restrictions may be utilized, such as piece count limits. It should now be apparent that the messages that meet the restriction criteria and are available for printing represent a subset of the total number of messages that are potentially available.

[0024] Again referring primarily to Fig. 4 while referencing the structure of Figs. 1, 2, 3, 5 and 6, once the available messages are determined according to the restriction data described above, at 614, the relevant messages and their corresponding subsidy rate 207b are presented to the user on the remote computer 150 via the user interface. This provides the user with the opportunity to view and analyze the available messages along with their corresponding subsidy rate 207b. Next, at 612, the user selects a message for printing on the envelope 20 in conjunction with the postal indicia 30. For the sake of clarity and brevity, it will be assumed that only one (1) message 70 is selected for printing in ad space zone 60a. However, those skilled in the art will recognize that, as described above, multiple messages may be printed. Alternatively, if the user indicates in the preference data 804b a default to the highest paying message, then this activity may be automated. Next, at 618, the data center 200 generates a print data packet to be downloaded to the remote computer 150 for use in printing the postal indicia 30 and the selected message 70. Preferably, the print data packet contains only information corresponding to the variable data portion of the postal indicia 30. In this embodiment, the remote computer 150 assembles the variable data with the fixed data which has been previously stored on the remote computer 150 to create a complete postal indicia 30. The print data packet also contains graphic information

necessary to print the selected message 70. Once the data packet has been received, the user can feed the envelope 20 through the printer 130 to effect printing. Next, at 620, the data center 200 updates the user account to reflect the transaction information, such as: the date, the postage amount dispensed, the hygienized address 50, the selected message 70, the corresponding subsidy, any fees associated with providing the above described services and any other relevant data. Similarly, the data center 200 updates the selected third party advertiser's account to reflect the transaction information, such as: the date, the selected message 70, the corresponding advertising fee, any additional fees associated with providing the above described services and any other relevant data. At a later time, the data center 200 exercises the preferred payment vehicle for the user and the selected third party advertiser, respectively.

[0025] Based on the above description and the associated drawings, it should now be apparent that the present invention improves the ability of third party advertisers to more efficiently reach their target audience through advertising on envelopes.

[0026] Many features of the preferred embodiment represent design choices selected to best exploit the inventive concept as implemented in a particular virtual postage meter environment. However, those skilled in the art will recognize that various modifications can be made without departing from the spirit of the present invention. For example, the address hygiene database 210 and the third party advertiser database 206 may be resident at the remote computer 150. Thus, a portion of the functionality of the data center 200 described above would be off loaded to the remote computer 150. The remote computers 150 could then periodically receive updated information concerning the address hygiene database 210 and the third party advertiser database 206 by any conventional means. Thus, those skilled in the art will recognize that there are many ways to distribute the functionality described above between the data center 200 and the remote computer 150. As yet another example, different billing rates may be applied for multi-color versus mono-color printing capability. Thus, users with multi-color printers may be offered higher subsidies.

[0027] Therefore, the inventive concept in its broader aspects is not limited to the specific details of the preferred embodiments described above, but is defined by the appended claims and their equivalents.

Claims

1. A postage printing system, comprising:

a computer (150) in operative communication with a printer (120,130) for printing a postal indicia on an envelope (20);
a data center (200) in operative communication

5 with the computer (150), the computer being located remotely from the data center, the data center (200) including a plurality of postage accounts and a plurality of advertiser accounts (206), each of the plurality of postage accounts including respective user profile data (204), each of the plurality of advertiser accounts including respective message data representative of a message for printing on the envelope (20);

10 a control system (152,202) in operative communication with the data center (200) and the computer (150) for:
15 establishing a transaction session between a user of the computer and the data center, the user corresponding to one of the plurality of postage accounts;
20 retrieving user profile data (204) from the one of the plurality of postage accounts; and
25 using the user profile data to identify a subset of messages available for printing on the envelope (20).

2. The postage printing system of Claim 1, wherein:

25 the control system is further operable for:
30 receiving from the user an indication of a selected message from the subset of messages that the user authorizes for printing on the envelope (20).

3. The postage printing system of Claim 1 or 2, wherein:

35 the control system is further operable for:
40 applying a credit to the one of the plurality of postage accounts corresponding to the user; and
45 applying a debit to the advertiser account corresponding to the selected message.

4. The postage printing system of any one of Claims 1 to 3, wherein:

50 each of the user profile data, respectively, includes classification data indicative of a business type;
55 each of the plurality of advertiser accounts, respectively, includes advertiser's restriction data indicative of a desired business type for the message; and
60 the control system is further operable for:
65 using the classification data of the user and the advertiser's restriction data of the plurality of advertiser accounts to identify a subset of messages available for printing on the envelope.

5. The postage printing system of any one of Claims 1

to 4, wherein:

each of the user profile data, respectively, includes preference data indicative of a preferred advertiser list; and
the control system is further operable for: using the preference data of the user to limit the plurality of advertiser accounts participating in identifying the subset of messages available for printing on the envelope (20).

6. A method of operating a postage printing system (10), the postage printing system including a computer (150) in operative communication with a printer (120, 130) for printing a postal indicia on an envelope (20) and a data center (200) in operative communication with the computer (150), the computer being located remotely from the data center, the data center including a plurality of postage accounts (204) and a plurality of advertiser accounts (206), each of the plurality of postage accounts including respective user profile data, respectively, each of the plurality of advertiser accounts having message data representative of a message, respectively, for printing on the envelope, the method comprising the steps of:

establishing a transaction session between a user of the computer (150) and the data center (200), the user corresponding to one of the plurality of postage accounts (204); retrieving user profile data from the one of the plurality of postage accounts; and using the user profile data to identify a subset of messages available for printing on the envelope (20).

7. A method of operating a data center, the data center (200) in operative communication with a computer system (150) including a printer (120, 130) for printing a postal indicia on an envelope (20), the method comprising the steps of:

maintaining a plurality of postage accounts (204) each of the plurality of postage accounts including respective user profile data; maintaining a plurality of advertiser accounts (206), each of the plurality of advertiser accounts including respective message data representative of a message (70) for printing on the envelope (20); establishing a transaction session with a user of the computer system, the user corresponding to one of the plurality of postage accounts; retrieving the user profile data of the user; and using the user profile data to identify a subset of messages available for printing on the envelope (20).

8. The method of Claim 6 or 7, further comprising the step of:

receiving from the user an indication of a selected message from the subset of messages that the user authorizes for printing on the envelope (20).

9. The method of Claim 7, further comprising the steps of:

applying a credit to the postage account corresponding to the user; and applying a debit to the advertiser account corresponding to the selected message.

10. The method of any one of Claims 6 to 9, wherein:

each of the user profile data, respectively, includes classification data indicative of a business type; each of the plurality of advertiser accounts, respectively, includes advertiser's restriction data indicative of a desired business type for the message; and further comprising the step of: using the classification data of the user and the advertiser's restriction data of the plurality of advertiser accounts to identify a subset of messages available for printing on the envelope (20).

11. The method of Claim 10, wherein:

each of the user profile data, respectively, includes preference data indicative of a preferred advertiser list; and further comprising the step of: using the preference data of the user to limit the plurality of advertiser accounts participating in identifying the subset of messages available for printing on the envelope.

12. The method of any one of Claims 6 to 11, wherein:

each of the user profile data, respectively, includes classification data indicative of a business type; each of the plurality of advertiser accounts, respectively, includes advertiser's restriction data indicative of a desired business type for the message; and further comprising the step of: using the classification data of the user and the advertiser's restriction data of the plurality of advertiser accounts to identify a subset of messages available for printing on the envelope (20).

13. The method of any one of Claims 6 to 12, wherein:

each of the user profile data, respectively,
includes preference data indicative of a pre-
ferred advertiser list; and

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further comprising the step of:

using the preference data of the user to limit
the plurality of advertiser accounts participating
in identifying the subset of messages available
for printing on the envelope (20).

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FIG. 1

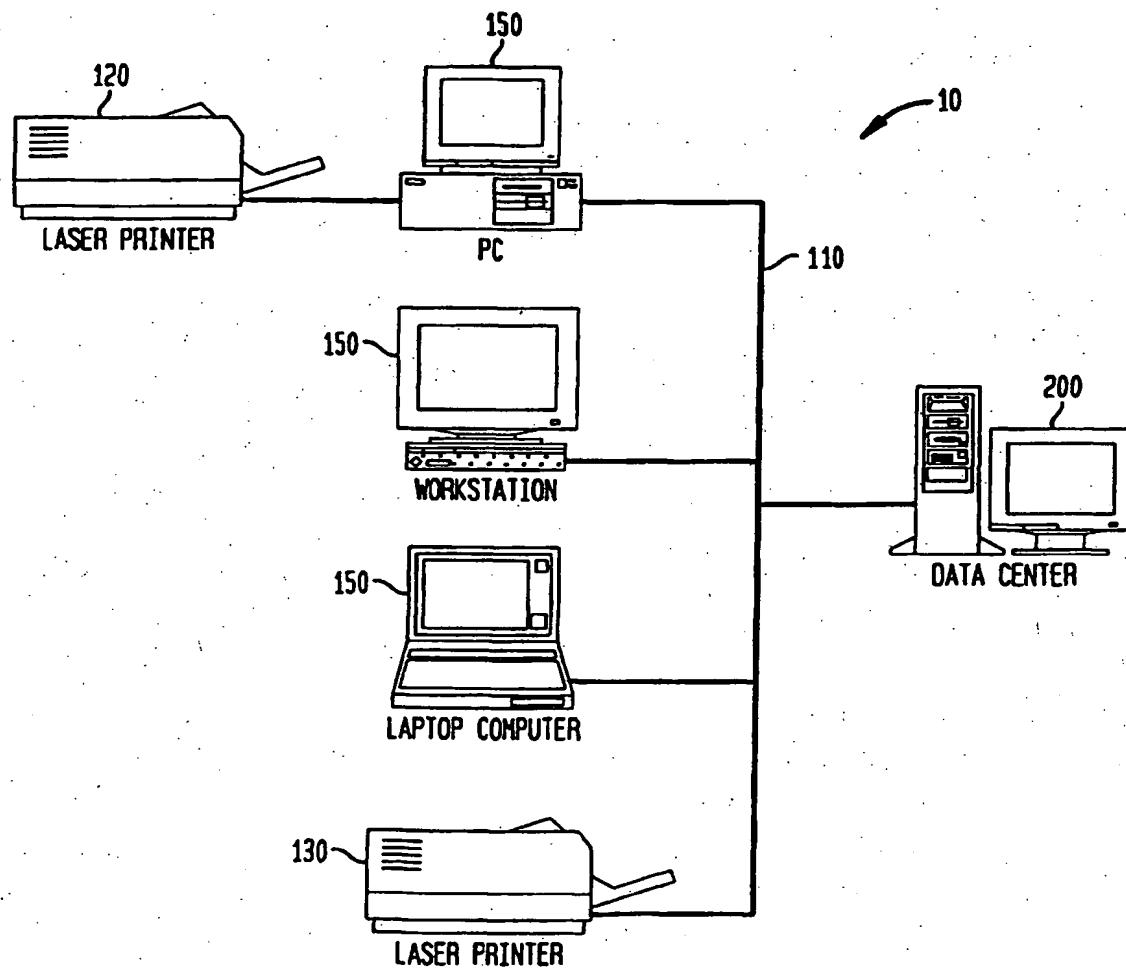


FIG. 2

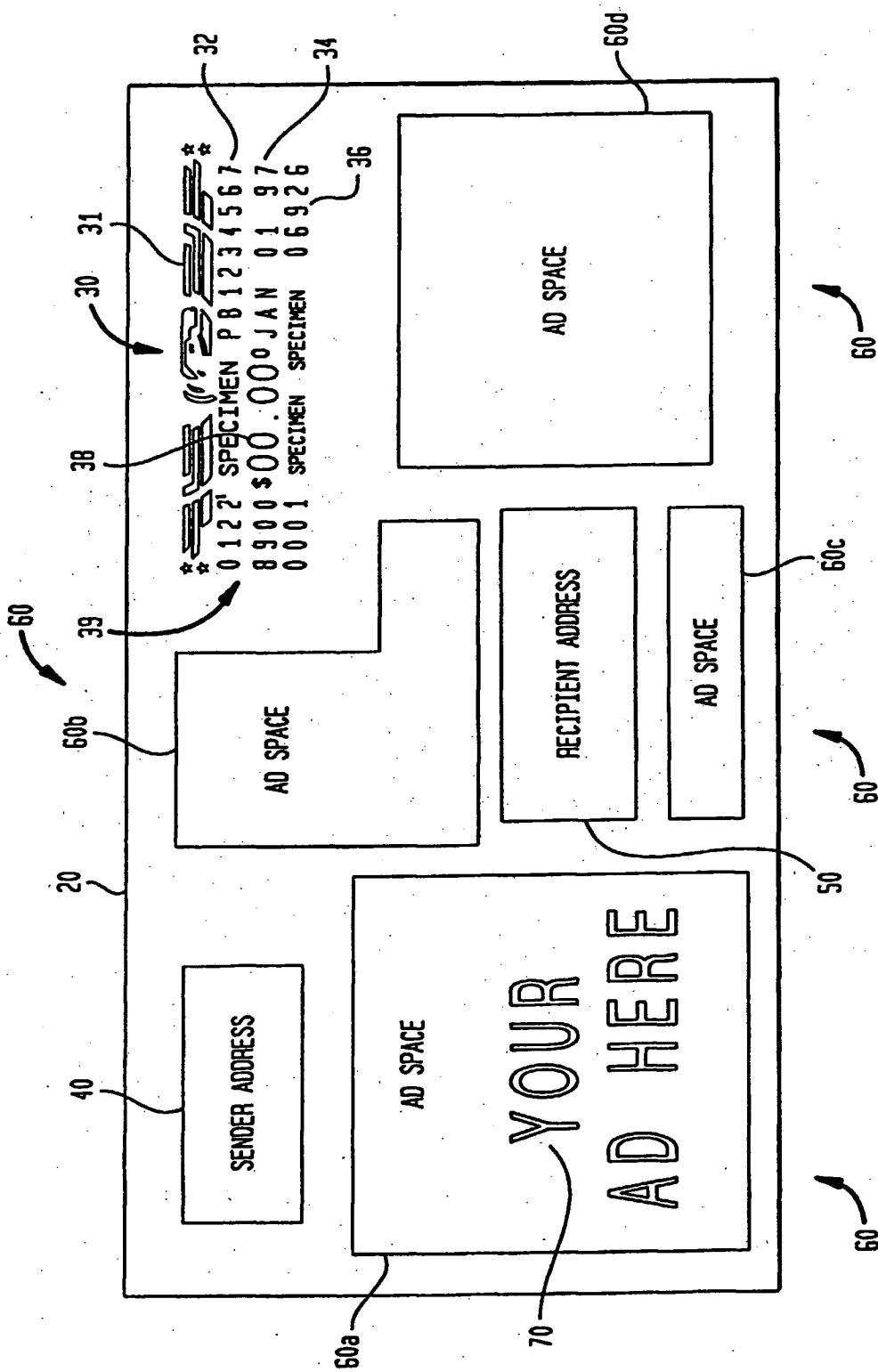


FIG. 3

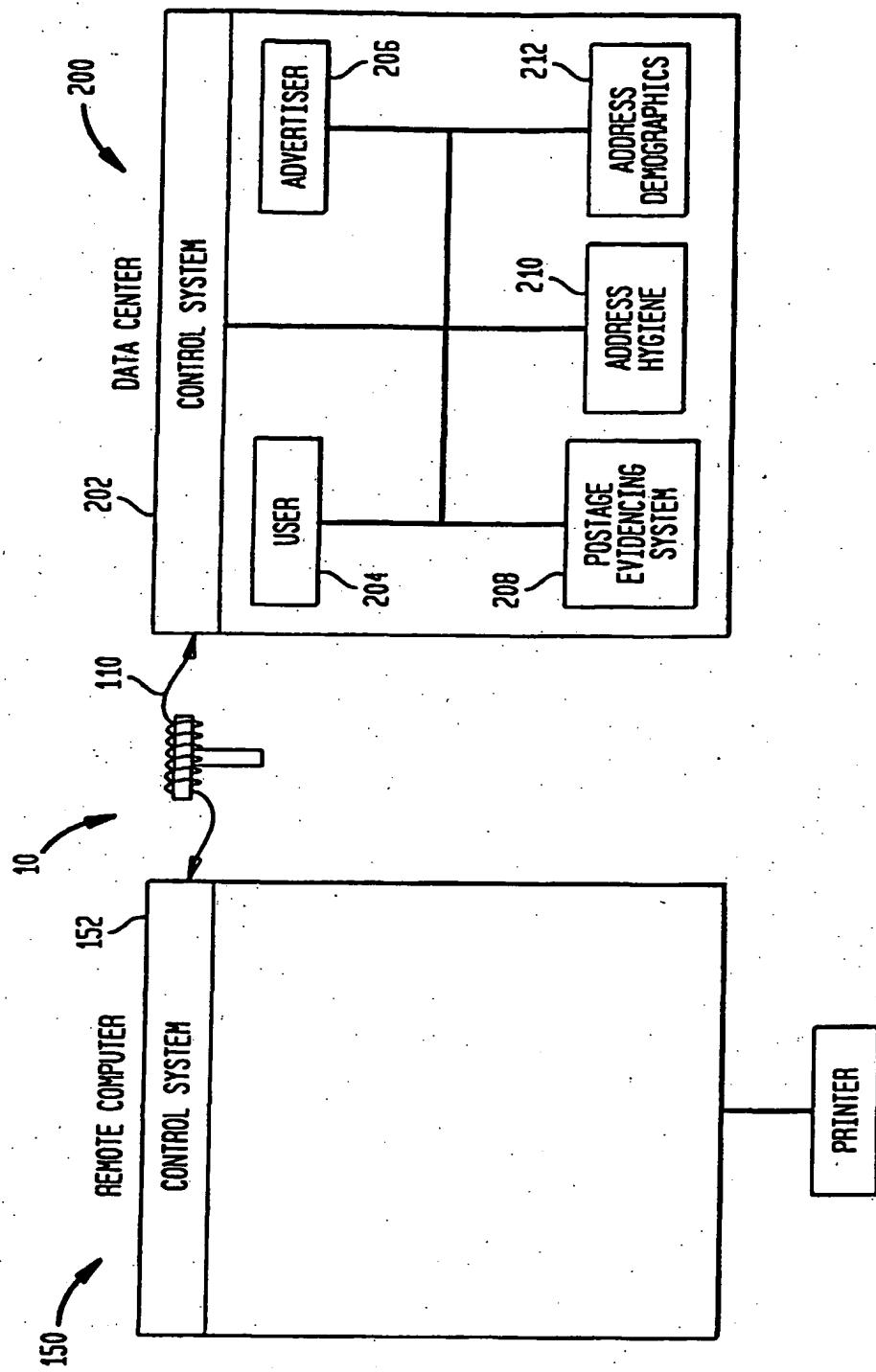


FIG. 4

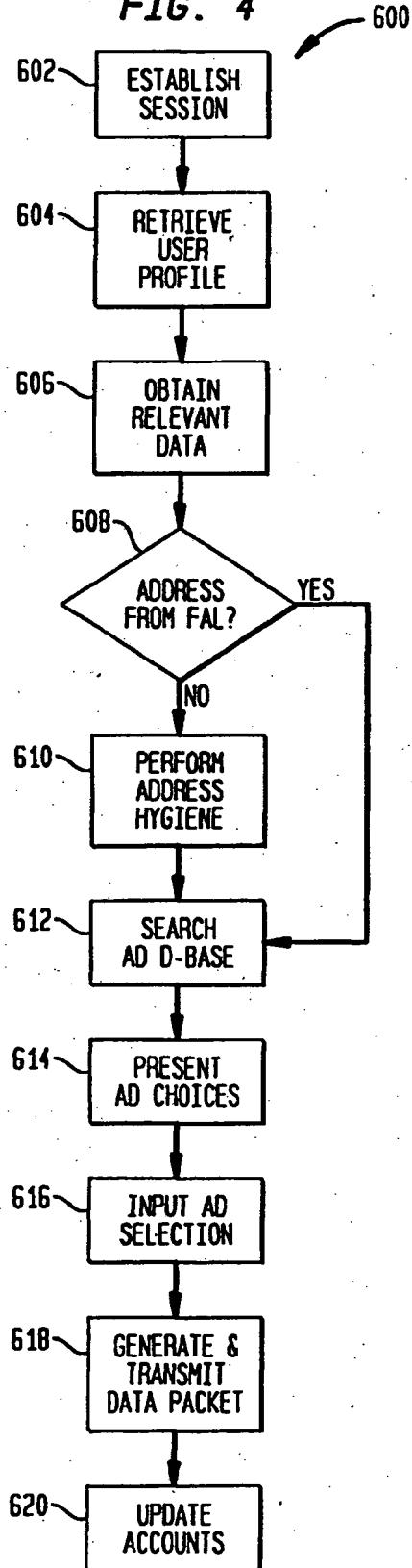


FIG. 5

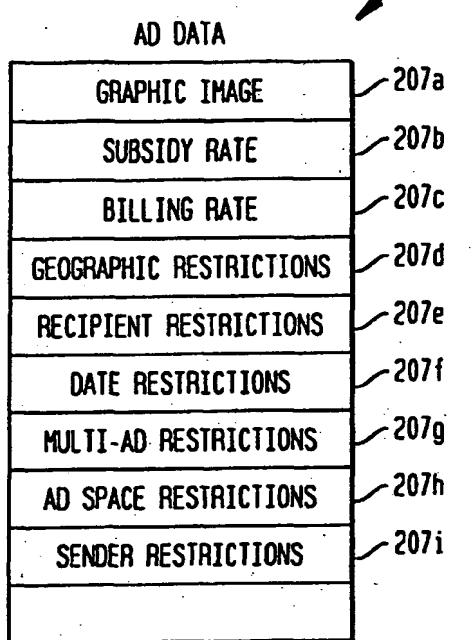


FIG. 6

